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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,632

03/11/2004

Michael V. Shuman

N0186 US

6665

37583 7590 07/28/2009  
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EXAMINER

RENDON, CHRISTIAN E

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

07/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/798,632	<b>Applicant(s)</b> SHUMAN ET AL.	
	<b>Examiner</b> CHRISTIAN E. RENDÓN	<b>Art Unit</b> 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 42-80 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 42-80 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/13/09, 12/31/08</u> .                                       | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of the Case***

In view of the appeal brief filed on 4/27/09, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Dmitry Suhol/

Supervisory Patent Examiner, Art Unit 3714

### ***Examiner's Position***

Geographic: relating to geography (Encarta)

Geography: the physical features of a place or region (Encarta)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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**Claims 42-47, 51-64, 66-72 and 74-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al. (US 6,146,143) in view of Halt (US 6,343,301) & Lechner (US 2003/0059743).**

1. Huston discloses a simulation system that accurately depicts the operation of a land based vehicle under a wide variety of driving conditions (Huston: col. 1, lines 58-61). The computer (Huston: col. 4, lines 25-27) system allows a person to drive along a roadway (Huston: col. 2, lines 3-4) containing other vehicles and traffic lights (Huston: col. 3, line 14).

2. Regarding claims 42, 60, 64, 68-69 & 76, the prior art discloses a **computer game** or simulator that depicts the operation of a vehicle through a sequence of images (Huston: abstract) depicting a simulated environment stored in a database (Huston: col. 4, lines 39-41). The art attempts to create objects (Huston: col. 7, lines 12-14) and events found in the real world (Huston: col. 6, lines 43-44). Thus based on the provided definitions the art discloses a **geographic database** since said database is used to create a simulated environment populated with objects, vehicles, pedestrians, traffic lights and roads (Hudson: col. 2, lines 12-15). In addition, the art describes simulating the **road connectivity** through several **roads in varying positions** or roadway network (Huston: col. 4, lines 42-43), different type of **road shapes** by depicting highways, rural and city roads (Huston: col. 4, lines 46-47), **turn restrictions at intersections** through the use of the vehicle's turn signal (Huston: col. 3, line 62) and road features such as **street names** and **address ranges of the roads** that are conventionally associated with roadways (Huston: col. 4, lines 46-48). However to further clarify that an ordinary artisan would consider street names and address ranges as "conventionally associated with roadways" the Examiner has provided Halt.

3. The provided reference, Halt states that a **geographic database** representing a region with its geographic features such as the **geographic coordinates of roads, street names, road segments, address ranges** and **turn restrictions at intersections of the roads** are well known features in the art (Halt: col. 1, lines 19-26). As stated above, Hudson discloses a **geographic database** therefore

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an ordinary artisan would have combined the two references. As a means to maintain all of the expected features of a geographical database. However the prior art combination is still silent towards who supplies the game developer the database (Huston: col. 4, lines 49-50) required to simulate a driving environment.

4. Lechner discloses creating a database (par. 53, line 29) for a flight simulator based on a predefined mission route (Lechner: abstract). The reference discloses two methods for a terrain model designer or **map developer** for obtaining images required to properly depict a mission. The reference describes the first method as time consuming and requiring an experienced terrain model designer to manually collect, process terrain source data and construct the terrain model (Lechner: par. 10, lines 3-6). The second method is for the terrain model designer to acquire the data from other **map developers** such as the Joint Services Imaging Processing Station (JSIPS), the Gateway Data Navigator (GDN), the United States Imagery and Geo-spatial Information Services (USIGS), the Master Environment Library (MEL), weather service feeds, commercial database or the like (Lechner: par. 7, lines 1-8). Yet the requested information is limited to data the designer, pilot and other personal have appropriate clearance towards (Lechner: par. 7, lines 8-10). The requested information is further limited to only a certain radial distance along a mission route of a **real world locale** (Lechner: par. 3, lines 1-11). Hence the Examiner interpretation of the art teaching the listed **map developers** as **transforming** a larger database of **data on real world locale** into a smaller or **template database** containing data on an **imaginary geographic locale**. Thus the **same entity** that **produces the source database** also **transforms the template database**. Concerning 'imaginary' data, the Examiner has interpreted 'imaginary' as being describing by the template database containing altered information. Lechner teaches the map developers limiting or altering data for a template database by providing only authorized data that depicts a portion of the world. Thus the boundaries of this template map misrepresent the real world; therefore the Examiner considers the

**template database** to contain an **imaginary locale** when compared to the **real world**. To further clarify the Examiner's meaning towards boundaries consider a template database simply containing Time Square in New York City (NYC). A person using the simulator to travel through a virtual Time Square is experiencing an **imaginary geographic locale** since borders or boundaries prevent them from traveling outside of Time Square. Thus misrepresenting the position of Time Square with respect to the rest of NYC and the Earth. Furthermore, copyright laws and licensing fees could prevent the developers of the simulator from including all of the stores and ads known to have residency in Time Square.

5. Lechner explains obtaining a geographical database from **map developers separate from game developers** as saving time and eliminating the need for an experienced model or map designer (Lechner: par. 10, lines 3-6). Therefore under the motivation provided by Lechner an ordinary artisan would acquire the street database required for the Huston simulator from an experienced **map developer**.

6. Regarding claim 43, the prior combination teaches providing a **database containing navigational functions for a real-world network** by providing a steering wheel **21**, accelerator **22**, brake **23**, clutch **24**, gear shift **25**, turn signal **26** and mirror control mechanism **28** (Huston: col. 3, lines 61-63) to control a vehicle on a roadway network (Huston: col. 4, lines 42-43).

7. Regarding claims 44-46, 61-62, 70 & 77, the prior art discloses realistically incorporating an object into the simulated environment (Huston: col. 7, lines 12-14). Therefore the art teaches providing a **level of accuracy/detail similar to a level provided by the source database**. In addition, Lechner teaches selecting data or **characteristic from a source database to create a template with a similar characteristic** (Lechner: par. 7, lines 8-10). The template database contains only a portion of the real world, the boundaries of this map misrepresents the real world therefore the

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Examiner considers the **template database** to contain an **imaginary locale** that is **similar to the real world**.

8. Regarding claims 47, 58, 63, 67, 71-72, 75 & 78, the system disclosed by Huston can create various types of roads: highways, rural roads, **city streets**. Therefore the system is able to illustrate the **road density**, **road shape**, and **road width** properly. In addition, the system simulate the features associated with these roads (Huston: col. 4, lines 44-49) like **altitude changes**, **signs**, **buildings** (Huston: fig. 11) and **point of interest** such as an intersection (Huston: fig. 7). In addition, the system provides a sequence of visual images in accordance with the operation of a vehicle (Huston: col. 1, line 64). Therefore the art **checks road connectivity** to provide a proper sequence.

9. Regarding claims 51-52, the prior art discloses storing the software in memory (Huston: col. 4, lines 25-27). It is well known in the art of computing that memory is a computer readable medium such as a **magnetic disk**, an **optical disk**, **RAM**, **ROM** or a **network transmission**. Furthermore, Lechner discloses a company **selling** a commercial database as a **template database** (Lechner: par. 7, lines 8-10) on a computer readable medium (Lechner: par. 16, line 1).

10. Regarding claims 53-56, 66 & 74, Huston discloses **3D** cityscape and landscape (Huston: Fig. 5-7) containing roads with **lane dividers** (Huston: Fig. 7), **buildings** (Huston: fig. 4), **clouds** (Huston: col. 2, line 50), **lane strip markings** (Huston: Fig. 6), **curbs**, **sidewalks** and **crosswalk** (Huston: Fig. 6), **pavement** (Huston: Fig 7), other **vehicles**, traffic lights & pedestrians (Huston: col. 2, line 14). All of theses objects create a virtual world containing **characters**, **game logic**, **vehicles & game rules**. Even though **traffic signals**, **signs and speed bumps** are not specifically mentioned they are items that are associated with the roads (Huston: col. 4, lines 44-49), which are necessary to test the user's driving knowledge (Huston: col. 5, lines 32-35). Furthermore **fences**, **trees**, **shrubby and lawns** are graphics that could be displayed to properly illustrate a rural road (Huston: col. 4, lines 46-47).

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11. Regarding claim 59, the limitations that are similar to claim 42 are rejected under the same rationale. Halt describes functions such as **digital route guidance** and **digital route calculation** as common features found in geographic databases (Halt: col. 1, lines 14-16).

**Claims 48-50, 65, 73 & 79-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al. in view of Lechner and Graf (4,645,459)**

12. The above description of the art combination between Huston & Lechner & the limitations they pertain to are considered with in this art rejection as well. Huston discloses a vehicle simulator to teach people how to drive a car in different scenarios. However neither prior art specifically mentions altering the data with horizontal and rotational transformations, displaying golf courses and parks, altering the distance, location and orientation of the roads.

13. Graf discusses an aircraft flight simulation (FS) as one of the many possible applications for the invented system (col. 1, lines 15-17). The FS system contains a visual subsystem for a vehicle simulator (col. 1, line 25) that receives flight data from the FS computer and terrain data from a 'gaming area' database (col. 1, lines 17-21) and creates a scene from the perspective of the pilot in the cockpit of the aircraft (col. 1, lines 21-24). The visual simulator uses the terrain and flight path or vehicle control data (col. 1, lines 36-40) to determine the location and viewing direction of the visual system of the vehicle (col. 7, lines 12-14). The scenes viewed by the pilot can comprise of images that are fictitious or represent real-life places from anywhere around the world (col. 4, lines 40-41). The images are organized into several databases: 2D, 3D-one axis & 3D-two axis (col. 10, lines 38-44) providing the designer a large variety of images. Allowing the designer to incorporate whatever he/she deems necessary for the scene or 'gaming area' (col. 1, lines 20-21). Thus Graf teaches depicting a simulated environment of the programmer's choosing therefore it would have been obvious for an ordinary artisan to incorporate this way of thinking into the Huston and Lechner simulator.



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14. Regarding claims 48-49 & 79-80, Graf discloses a computer or manual operator generating the scenes that can contain a variety of objects that represent nature: **mountains**, **lakes**, bushes (Graf: col. 10, line 11), **rivers**, etc (Graf: col. 10, line 24), trees, houses, roads, lights, rocks (Graf: col. 5, lines 22-23). Therefore a person or a computer has the means to display a **park**. However the prior art fails to disclose displaying a golf course. It would of have been obvious to one of ordinary skill in the art to include a sand trap object in the 2D surface library to further expand the systems ability to create diverse environments with **golf courses**.

15. Regarding claims 50, 65 & 73, the 'gaming area' contains geographical features (Graf: Fig. 1) like natural structures like 2D rivers or man-made structures like 3D buildings. The operator of the system is able to create a scene from the perspective of the pilot in the cockpit of the aircraft (Graf: col. 1, lines 21-24). The scenes are constructed in three phases: land, water and sky surfaces (col. 5, line 20). Graf discloses the surface library containing different road surfaces (Graf: col. 5, lines 50). A scene can consisting of roads of different widths and shaped in any direction the user or computer sees fit since either the computer or a manual operator create the scenes (Graf: col. 10, lines 7-10; col. 7, lines 1-8). In other words, the operator is able to manipulate or transform the **location**, **length**, and **orientation**, etc of the roads based on the control functions (Graf: col. 8, lines 14-21).

### ***Response to Arguments***

Applicant's arguments with respect to claims 42-80 have been considered but are moot in view of the new ground(s) of rejection.

### ***Examiner's Note***

Applicant is duly reminded that a complete response must satisfy the requirements of 37 C.F. R.

1.111, including: "The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. A general allegation that the claims "define a patentable invention" without specifically pointing out how

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the language of the claims is patentably distinguishes them from the references does not comply with the requirements of this section. Moreover, "The prompt development of a clear Issue requires that the replies of the applicant meet the objections to and rejections of the claims." Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP 2163.06 II(A), MPEP 2163.06 and MPEP 714.02. The "disclosure" includes the claims, the specification and the drawings.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTIAN E. RENDÓN whose telephone number is (571)272-3117. The examiner can normally be reached on 9 - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on 571-272-4430. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dmitry Suhol/  
Supervisory Patent Examiner, Art Unit 3714

/CHRISTIAN E RENDÓN/  
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CER